SUGAR BYTES

CYCLOP

Manual

Table of contents

What is Cyclop

Cyclop is a monophonic Synthesizer with a large number of innovative features. The finest DSP algorithms give Cyclop an unbelievable direct and powerful sound which is made to fit perfectly into the mix.

Cyclop specializes in wobble sounds, which means that rhythmical material is the special power of this synthesizer. Conventional structures have been twisted in a refreshing way to give you a workflow full of fun and lucky surprises.

The 4 main controls let you tweak your sound in different ways, which you can move with recordable envelopes, fired up by your MIDI notes.

Vocal sounds are not made by just vowel filters anymore, also the oscillators can produce humanoid sounds, especially the Transformer, which is a sophisticated wavetable/granular/pitchformer sampler.

The Effect section was made to impress, being a mixture of Effectrix and Turnado flavors, adding the Gater and recordable knob envelope as special performance features.

We hope you will have lots of fun with your new bass machine!

Installation

Download (requires login) the latest version <u>here</u>.

The standalone version and the manual will be installed into:

Windows: C:\Program Files\Sugar Bytes\Cyclop
OS X: /Application/Sugar Bytes/Cyclop

Presets will be installed into Documents\Sugar Bytes\Cyclop.
Do not move the Cyclop presets after installation!

Default installation paths:

WINDOWS 32bit

VST   C:\Program Files\Steinberg\Vstplugins
RTAS   C:\Program Files\Common Files\Digidesign\DAE\Plug-Ins
AAX   C:\Program Files\Common Files\Avid\Audio\Plug-Ins

WINDOWS 64bit

Note that in C:\Program Files are all 64bit Plug-ins and
in C:\Program Files (x86) are all 32bit Plug-ins.
Make sure you have installed the correct version (32bit/64bit).

You can check if your DAW is running in 64bit or 32bit when you open the task manager while your DAW is running and it will give you a clear info about it.

Default installation paths for the 32bit flavor:

VST   C:\Program Files (x86)\Steinberg\Vstplugins
RTAS   C:\Program Files (x86)\Common Files\Digidesign\DAE\Plug-Ins
AAX   C:\Program Files (x86)\Common Files\Avid\Audio\Plug-Ins

Default installation paths for the 64bit flavor:

VST   C:\Program Files\Common Files\Steinberg\VST2
AAX   C:\Program Files\Common Files\Avid\Audio\Plug-Ins

OS X

The Audio Unit, the VST Plugin, the AAX and the RTAS Plugin will be automatically installed into the correct folders.
Our plugins are universal binaries that include 32bit and 64bit. Depending on your host the correct variant will be loaded/ used.
AAX is supported for Pro Tools 10.3.5 and higher.
(It's not selected by default in the installer)

Default installation paths:

VST   /Library/Audio/Plug-Ins/VST/
AU   /Library/Audio/Plug-Ins/Components/
RTAS   Macintosh HD/Library/Application Support/Digidesign/Plug-Ins
AAX   Macintosh HD/Library/Application Support/Avid/Audio/Plug-Ins

Uninstalling

In order to uninstall Cyclop, please take the following steps:
Windows: Uninstall Cyclop under Control Panel/AddRemove Software.
OS X: Here is the way to delete everything regarding Cyclop:

/Applications/Sugar Bytes/Cyclop
/Library/Audio/Plug-Ins/VST/Cyclop.vst
/Library/Audio/Plug-Ins/Components/Cyclop.component
/Library/Application Support/Digidesign/Plug-Ins/Cyclop.dpm
/Library/Application Support/Avid/Audio/Plug-Ins/Cyclop.aaxplugin

~/Documents/Sugar Bytes/Cyclop
~/Library/Preferences/com.sugar-bytes.Cyclop.plist

~ means: /Users/YOURLOGINNAME (your home folder)

(Please note that since OSX 10.7.x the library folder is a hidden folder.
Therefore please use the "Go To Folder" menu and then enter ~/Library.)

Authorization

The serial number is requested for installation.

If the serial number validation fails, the plugin will show that in the Cyclop About Screen.

CYCLOP Structure

Essentially, the upper part of the instrument is the modulation and FX area, while in the lower half you'll find synthesizer, audio routing, and filters.

Cyclop is essentially controlled by a MIDI keyboard. Using the 4 Main knobs along with your performance will create vivid sounds, full of madness and vitality.

A sound is created by setting the synthesis controls and assigning modulators. There are always 16 assignable controls: 3 synth controls, 3 filter controls, 2 routing controls, master pitch and master level.

Between synthesizers and filters you find the Routing module, where you can easily connect oscillators and filters in different ways.

The master effect section includes sub oscillator, bass processor, distortion and stereo imaging.

The effect sequencer is the last module in the signal path.
It combines a 4-track sequencer with lots of effects.

The Presets

The Cyclop presets are located in Documents/Sugar Bytes/Cyclop.

Here you find one folder for presets and one folder for samples.

The presets and samples can be found in the lower subfolder structure. Only one subfolder is possible.

The DICE button selects a random preset.
The ARROW buttons switch to next/previous preset.

The preset field shows the current preset and above the preset folder.
Click into the preset name to open the giant Preset Handler.

The "Disk" button will save a preset and opens a window for assigning tags to your preset.
You can select tags from the menu but also just write your own tags into the tag fields.
Tags can also be edited later in the Preset Handler.

The Robot shows when a tag has been applied.

The Preset Handler

The new gigantic Preset Handler offers convenient ways to find your desired sound.

Here you can assign four tags, rating and author to the selected preset.
Presets can be filtered using these tags.

Furthermore, you can create your own program change lists and load/save them.

The Trace Window

Here you can filter presets depending on their tags or other preferences.
4 modes are available:

 Cloud

The beautiful way to find nice sounds. The Cloud shows all tags, with different size, according to their population.
Click on a tag to show all presets with that tag in the "Result List".
Click on another tag to sharpen the search.
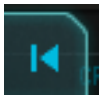
 Click the "Reset" button to reset the search.

 Tag List

All tags are shown in a list.
Works exactly like the cloud.

 Author List

Here you can find presets according to their authors.

 Folder List

Here all preset folders are shown and presets can be filtered according to the folder they are in.

The Result-List

Here all found presets are listed.
Double click a preset to load it.
Click on NAME, AUTHOR or RATING to sort the presets.

The MIDI Program List

The MIDI program list can be expanded from the result list.
When the MIDI Program List is shown, MIDI Program Changes can be executed.

Drag & drop presets from the Result list into the MIDI program list in order to build your own MIDI Program List.

Don't forget to save the list when you are done. If you only want to use one list regardless which preset you load, you should save your list as 'Default.smbp'.

If you want to connect a certain list with a certain preset you have to load a preset. Then load or save a MIDI PRG LIST and then save your preset.
So in general one could say: a preset always loads the MIDI PRG LIST it had chosen when the preset was saved.

You can also copy the whole result list to the program change list using a button.

Program lists can be saved and loaded.
The presets contained in a program list cannot be edited anymore.

The Edit Field

In this field, tags are assigned to the selected preset.

Author, Rating and 4 tags can be assigned.

All changed are executed immediately.

The Robot shows which tags are assigned.

For each assigned tag, one of his parts will lighten up.

Working with Tags

A tag can be chosen from the tag list.

To create your own tags, just write your tag into the tag list.

In order to delete a tag, just make sure it is not assigned to any preset.

The 4 main controls

Cyclop has been made to join first-class DSP with modulation madness
to achieve unbelievable sounds.

The 4 main controls are for tweaking the current sound. Each of the main controls includes a
recordable envelope which is called Recorder. The recordable envelope remotes the control
when its play button is active and when a MIDI note is played.

Wobble Knob: Waveform and speed of the Wobble LFO.
Assign Knob: Morph between two Wobble->Parameter assignments.
Sound Knob: Manual value, that can modulate parameters.
FX Knob: Control about the FX Sequencer.

Wobble Knob

The Wobble Generator is displayed by the mighty Wobble Knob in the upper left part of the
instrument. The Wobble Knob lets you choose from 12 LFO Speeds and Waveforms. The
Wobble is a Modulator and can be assigned to 16 different internal targets.

Wobble Amount Knob

The smaller Wobble Amount Knob performs a morphing between two Wobble->Parameter
assignments. With this knob you can morph from one wobble to another or just to fade a
wobble in or out.

Make Wobble assignments where all assignments are made — in the Assignment Page.

Sound Knob

The Sound Knob also is a modulator that creates a "control voltage" which can be assigned to different parameters in the Assignment page.

The Sound Knob makes it easy to morph from one sound to another by just turning parameters up or down, according to the assignments you made in the Assignments Page.

We recommend using the Sound Knob Recorder Envelope to ride parameters exactly the way want. A common way of using this is to turn down the pitch after a while in order to create a custom tape stop effect.

FX Knob

At the top right we find the beautiful FX Knob which gives you control over the FX Sequencer. The Knob also shows all active effect slots and the current Gater pattern. Effects and Gater can only be edited in the FX Sequencer, so clicking into the funny FX Knob area opens the FX Sequencer directly.

The FX Knob can be remoted by the Recorder (green Play Button), by the FX Sequencer Clock (blue Play Button), or by Mouse/MIDI CC (Hand Button).

The Wobble Generator in detail

The Wobble Generator is an advanced LFO that is built of the 3 main units Wobble Knob, Wobble Settings and Wobble Amount. The Wobble Knob lets you choose from 12 LFO Speeds and Waveforms, while the Wobble Amount Knob morphs between 2 Wobble->Parameter assignments. The Wobble Settings Page lets you do some deeper tweaking of the wobble performance, like phase offset, restart options, wave quantizer and different ways to control the knob.

Wobble Knob

The Wobble Knob allows control about Wobble speed and wave form.

Special about the Wobble LFO are the fixed values.
The snowflake indicated Freeze mode. Like a sample and hold module,
The Freeze will maintain the last active value as long as it is selected.
If the Wobble Knob turns from a sine wave to the snowflake, the last value of the sine wave
will be held until another wave form is selected.

Furthermore, there are 5 fixed valued available. These values are
0%, 25%, 50%, 75% and 100% and are displayed by square with different sizes. These values
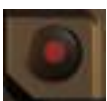make it possible to use the Wobble Generator like a step sequencer.

The central wave form control sets all wave forms at once.

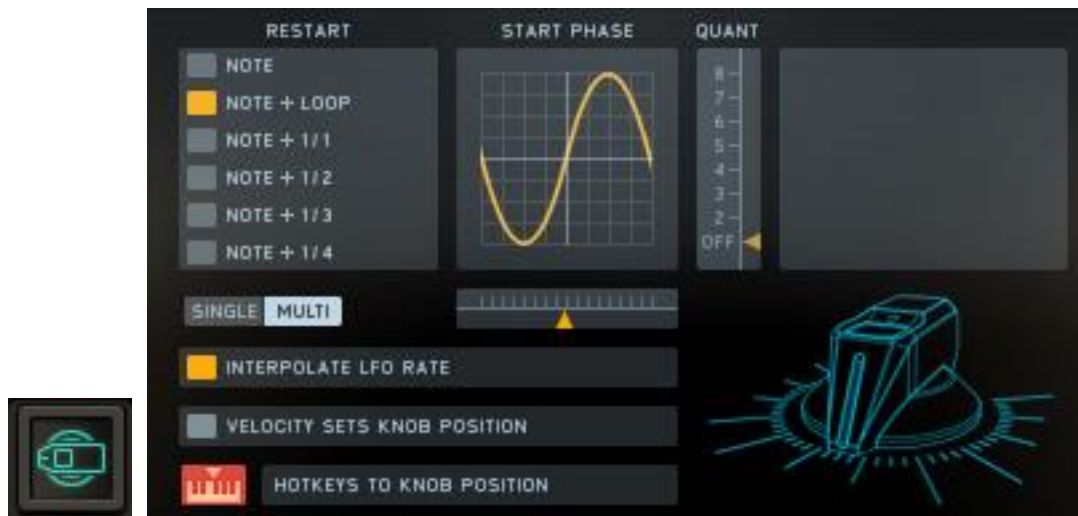The Random Button sets a random wave form situation.
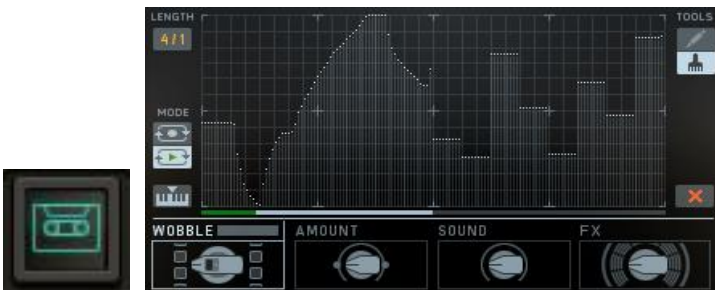
The Wobble knob can be controlled by its own recordable envelope.

Click the record button to arm for envelope recording and directly open the Envelope
Recorder Screen.

Wobble Settings

The Wobble Generator has its own settings screen where you can make even deeper adjustments.

The following options are available:

Start Phase
Here you can set the starting phase of the wobble LFO. This determines if the modulation will go upwards or downwards after you hit a note.

Quantize
The LFO signal is quantized to stepped values.

Restart
This control determines when the wobble LFO will restart. You can restart it with a MIDI note, but also when the Wobble Recorder Envelope wraps around or with several beat divisions.

Interpolate
This button determines if the LFO Speeds are switched or faded.

Hotkeys
The 12 Wobble Knob positions can directly be controlled by the 12 Hotkeys.

Velocity
This controls the Wobble Knob by MIDI velocity values.

Wobble Amount Knob

The Wobble Generator creates a unique modulation curve that you can to apply to synthesizer parameters — that's what the Assignment Screen is all about. Here you can see all modulations at a glance and you can call up the Assignment Pages for all modulators quickly, according to their data.

If you call the Wobble Assignment Page, you can see that it has A and B pages. These pages are morphed by the Wobble Amount Knob.

Hit the A Button to setup the Wobble for the lowest position of the Wobble amount Knob. Then hit the B button then create the Wobble for the highest knob position. Now use the Wobble Amount knob to morph between the wobbles.

The HotKey System

The red keys in the lowest octave are the HotKeys. These keys produce no sound, they just save different setups in different places of Cyclop. If you see this Button, you can activate the HotKeys. If the Hotkeys button is off, the HotKeys are disabled and will not affect your sound when you hit a HotKey by accident.

Use the Hotkeys to connect Wobbles with Effect Sequences or Knob Recordings. Here´s how it works in the single places:

Wobble Knob
Use the HotKeys to call the 12 Wobble Knob positions directly and save the 12 waveforms of the Wobble Knob.

Knob Recorders
Use the Hotkeys to call different Recordings. That means, each Hotkey can contain a different Knob Recording (Remember? The 4 Main Knobs contain recordable Envelopes).

Assignment Pages
Save different Modulation Assignments on the Hotkeys. That way, you can load completely different sounds with the HotKeys.

FX Sequencer
Use the Hotkeys to call up different FX and Gater Sequences.

The Center Screen

The Central Screen covers 6 units:
Wobble Settings, Standard Modulators, Modulations Assignments,
FX Sequencer, Main Knob Recorders, MIDI Settings and the game.

Use the 6 buttons around the screen to call the pages:

 Wobble Settings

 Standard Modulators

 Modulation Assignments
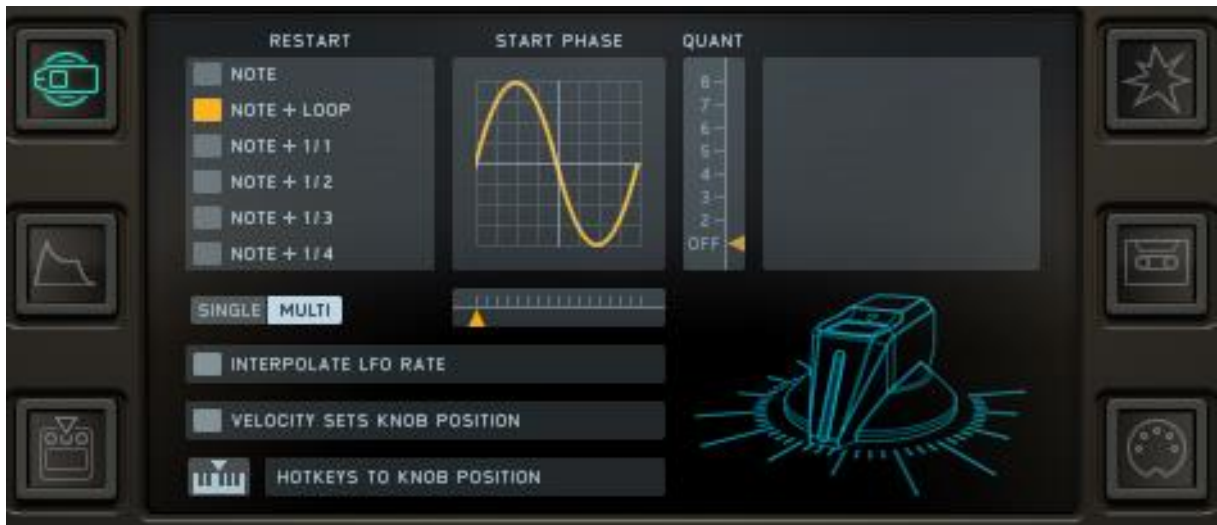
 Effect Sequencer

 Recorder Envelopes

 MIDI Settings

Wobble Settings Page

Here you can make special settings for the Wobble Generator.

Restart: Decide if the Wobble LFO restarts with each MIDI Note, at certain beat divisions, or when the Recorder Envelope wraps around.

Single/Multi: Decide if the Wobble LFO restarts with each note (Multi) or with each first note (Single).

Start Phase: Use the fader to set the start position of the Wobble LFO.

Quantize: The Waveform is quantized to stepping values.

Interpolate: Decide if the Wobble Knob switches or fades between beat matched LFO rates.

Velocity Sets Knob Position: MIDI Velocity will control the Wobble Knob.

HotKeys: Activate this button to control the 12 Wobble Knob positions with the 12 HotKeys.

The wobble wave form is displayed in the upper left bull´s eye.
Here you can see all waveform changes and LFO restarts.

Standard Modulators Page

The Standard Modulators Page contains the modulators Envelope, LFO and Step Sequencer. These modulators can be assigned in the Assignment Screen. All modulators are triggered with a MIDI note. The LFO can be controlled by the Envelope and the Step Sequencer can be driven from various Sources.

Envelope

The Envelope is an AHDSR Envelope which can be restarted with each MIDI note (Multi) or with each first MIDI note (Single).

Attack sets the fade-in time (from zero to full value) until the hold/decay/sustain is reached.

Hold determines how long the maximum value is held before decay is started.

Decay is the fade time to the sustain value.

Sustain is the value that remains constant as long as the note is held.

Release is the fade out time after the note is released.

LFO

The LFO generates a specific waveform which modulates parameters. Nine different LFO waveforms are available. These are the same waveforms as in the wobble generator, except for the freeze and the fixed values.

LFO Rate and LFO amount can be faded in and out with the Envelope.
Use the exponential and logarithmic waveforms to produce percussive sounds.

Rate: The LFO rate, always in sync with your song tempo.

Waveform: The LFO Waveform.

Env->Amt: Envelope controls LFO amount.

Env->Rate: Envelope controls LFO Rate

Scope: Shows you the current LFO signal.

Step Sequencer

The 16-Step Sequencer delivers a sequence of 16 values.
You can read the sequencer in different ways to achieve the moqr craziest modulations.
Usually a clock is used to read a sequencer, so the clock menu gives you choice about the available read modes:

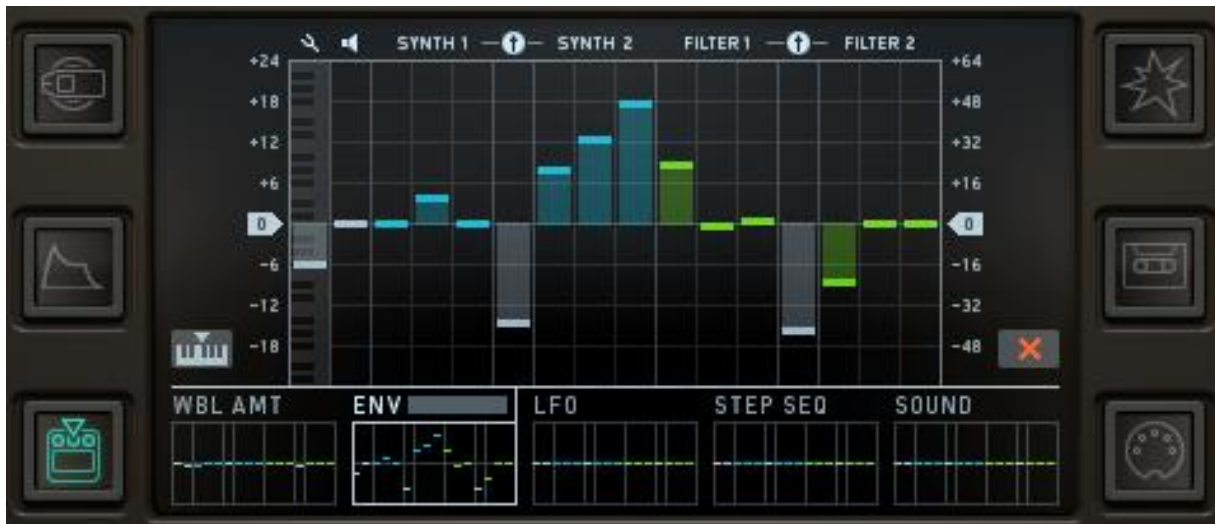**Gater:** The FX Gater clock controls the sequencer.

MIDI Gate: Each MIDI note reads the next step.

LFO: LFO controls the step sequencer.

ENV: Envelope controls the step sequencer.

Clock: The step sequencer´s own clock speed.

Modulation Assignments Page

Here you find all Modulation Assignments.

In the lower part of the screen you see all modulations at work. Plus, you can see all fader positions of the individual Assignment Screens.

Each of the internal modulators has one Assignments Screen: Wobble Generator, Envelope, LFO, Step Sequencer and Sound Knob.

Click one of the small windows to call the Assignment Page for the desired modulator.

Click the X button to delete all assignments for the selected modulator.

The Wobble Amount Page contains two screens which are morphed by the Wobble Amount Knob. Click the A and B buttons to call the screens directly.

FX Page

Here you'll see the FX Sequencer. It provides 4 sequencer lanes, each with a choice of 8 effects. The Effects have no further controls, only the "Send FX" offer dry/wet controls to determine the effect mix.
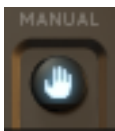The other effects are "Looper-Effects" which always run at 100% wet.

Use the FX Slots like knobs, mouse them up- or downwards to select the desired effect. Spread the same effect across several steps holding the Shift key.

The Effect Sequencer can be read in 3 different ways:

A clock is used the read the FX sequencer.

The Knob is used to read the FX Sequencer.

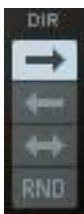The Recorder Envelope controls the FX Knob and so reads the FX Sequencer.

The Effect Sequencer can be filled with effects randomly. (Dice Button)
The X Button deletes the sequence.

The Clock determines the read speed of the sequencer, in relation to the song bpm.

The Swing function plays each second step a bit later.

The playback direction can be set to different modes, also Random.

Use 12 different FX/Gater sequences by activating the hot keys.
An empty Gater will mute all audio!!!

The FX Sequencer has a loop bar which determines where the sequencer starts and how many steps it will play in loop.
Grab the loop bar ends to resize the loop.
Grab the loop bar middle to move the loop.

Use the HotKeys to fire up different FX Sequences directly from you MIDI keyboard.

On the top of the page you find the Gater which interrupts the audio signal.

The Single/Multi button defines how the sequencer will restart.
If Single is selected, the sequencer will restart with each first note.
If Multi is selected, the sequencer will restart with each note.

Pitch Looper

The Pitch Looper repeats the audio signal for a certain amount of time. With each repetition, the pitch becomes higher or lower. The Pitch Looper provides 4 different settings for "Pitch Up" and 4 different settings for "Pitch Down".

Looper

A simple looper effect which repeats the audio material at a certain rate. The 8 settings of the Loop FX lane offer 8 different loop sizes.
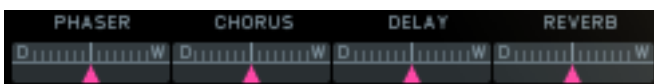
Vinyl FX

This is a collection of several vinyl effects.

1. Tape Stop fast
2. Tape Stop slow
3. Vinyl slow
4. Vinyl med slow
5. Vinyl med fast
6. Vinyl fast
7. Scratch slow
8. Scratch fast

Send FX

The send FX are all delay-based effects. There are 2 settings available for Phaser, Chorus, Delay, and Reverb.

These effects offer individual dry/wet controls to determine effect intensity.
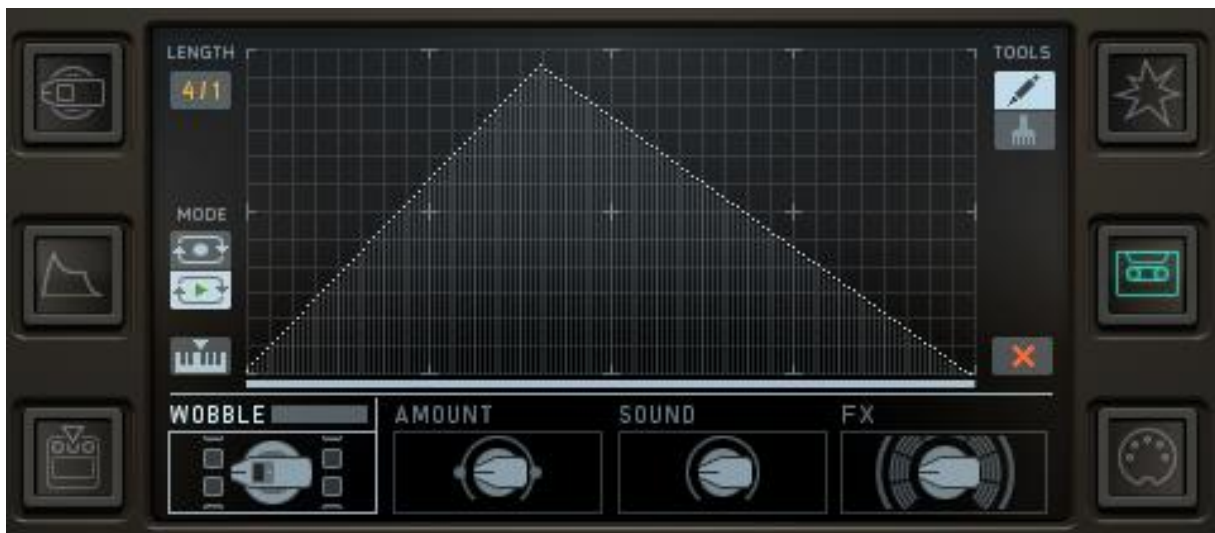
Gater

On top of the FX Sequencer page you find the Gater which works like a trance gate: it interrupts the audio signal with a groovy pattern.

In addition, the Master Amp Envelope is triggered. Usually you would not notice, until you use Release or Delay in the Amp Envelope. Then you can let the Gater step have decay or release curves.

Main Knob Recorders Page

Here you'll find the Recorder Envelopes for the 4 Main Knobs.

Essentially, these are 144-Step Sequencers which can record data from their respective Knobs. You can also draw values with the mouse and switch it to a 16-step sequencer.

The Recorder has a loop bar which defines the playback range within the sequence.
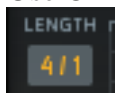Grab the loop bar ends to resize the loop.
Grab the loop bar middle to move the loop.

The Record and Play functions are activated with these buttons and are finally executed with a MIDI note.

Use CTRL+Mouse to draw straight lines (only in FINE draw more).

Length: Defines record and playback speed.

Erase: Deletes all data.

Draw Fine: Draws each of the 144 steps at once.
(use the CTRL key to draw straight lines).

Draw Coarse: Draws like a 16 step sequencer.

Mode: Determines if recording or playback is repeated or running only for one time, as long as a MIDI note is held.

MIDI Settings Page

All MIDI-related settings are made here. Additionally, here you find the pitch LFO that you would expect when using the modulation wheel.

Ignore Program Change: Incoming program change messages will be ignored. Only presets from the folder "MIDI Programs" will be used for program changes.

CC Preset Isolate: MIDI-CC assignments (MIDI Learn) will not be saved or changed with the presets.

CC Map: Load or save your current MIDI CC assignment.

Pitchbend Range: Intensity of the pitch bend wheel in semi notes.

Master Tune: Makes the overall tune fit to your "out of tune" song.

Modwheel to Pitch LFO: You expect a slight pitch LFO when using the modwheel. Set this up here.

Master Effect Section

The Master Effects section contains final insert effects and the sub oscillator.

Sub Oscillator

The Sub Oscillator provides a clean bass fundamental. That ensures that you can use the synthesizers for any sounds without having to pay attention on the bass provided by the synthesizers 1 and 2.

The Sub Osc is a high quality Sine Osc that plays along with your MIDI notes. You can set it 1 or 2 octaves below original pitch to have the bass where you want it.
The Sub Osc is not sent through any filters or effects, just the pure sine is delivered directly to the output.

Bass

The Bass processor provides a defined bass boost are 60 and 80 Hz while it cuts down the 225Hz a bit. This will put the bass where you need it.
If the synthesized sound contains no low frequency, there is nothing to amplify. In such a situation, it is better to use the Sub Oscillator to add some decent bass.

Stereo

The Stereo Processor spreads the audio signal in the stereo field.
No delays are used to avoid any phase problems. The Signal becomes split into 8 frequency bands between 250Hz and 4000Hz which become sent to the left and right speaker, while

frequencies below 250Hz and above 4000Hz remain in the middle. This M/S Stereo processing is quite unique and will make your bass fill the room.

Distortion

The 9 available Distortion units give the final synth signal some roughness and dirt. Nice flavors are available to add some beef to your sound.
The same Distortions can be found in the Routing Unit, where distortions are used between the filters when they run in series.

Amp
Amp/Speaker simulation with lots of warmth.

Drive
Nice and angry overdrive with a special top end.

Dist
Intensive distortion that turns the sound into something new.

Diode
The distortion core from the MS-20 filters is used here to provide some mojo.

Clip
The audio will be boosted until it clips. Use this unit to just boost your level or to add some really evil distortion.

Sine
The audio signal is boosted and then runs through a sine algorithm.

1-Bit
The audio signal must decide 1 or 0? The hardest digital method.

Crush
Nice bit crusher that basically adds some silver to the sound.

Digitize
This pitch-dependent sample rate reducer is always good for some digital vocal sounds.

Master Envelope

The Master Envelope defines the overall Level performance.
It can fade the audio signal in and out while a note is pressed and can let the synth fade out slowly after a Note has been released.

The **Attack** control lets the sound fade in for up to 4 sec.

The **Decay/Release** control is special:
If the knob is below 50%, it is decay and the sound will fade out while you hold the note.

If the knob is at 50%, it is just sustains and the sound will be heard as long as you hold the note.

If the knob is above 50%, it is release. Now the sound fades out after you release a note.

The **Velocity** button determines whether or not MIDI velocity is used to define the Level.

Glide

The Glide processor fades from one note to the next and can take from 0ms to 2000ms until the next note is reached.

The Glide offers two modes:
One Finger: Glide is performed always.
Two Fingers: Glide is only performed when two or more notes are played.

Synthesis Area

In the lower half of the instrument you find the Synthesis Area.
It consists of Synthesizer 1, Synthesizer 2, the Routing Module, Filter 1 and Filter 2.
Synthesizers and Filters can be routed in different ways to
achieve a wide variety of possible sounds.

The 3 main controls of synthesizers, routing, and filters can be modulated by the internal
modulators. Use the Wobble Assignment Page to check out the modulation stuff.

The 3 main controls of synthesizer and filter contain a lamp that shows the current modulation
at work. The Red Light indicates negative modulation, the Blue Light indicates positive
modulation.

The two main controls of the Routing Module show their modulations with the Arrow-
displays. These displays display the final parameter position.

The routing parameters usually fade between two synths and/or two filters. If filters are placed
in series, the filter mix control becomes the distortion amount control.

The Synthesizers

Cyclop generates its sound with 3 oscillators: the sub oscillator and the 2 main oscillators.
The sub oscillator is part of the master FX section. The main oscillators are fairly complex
synthesis units which we call Synthesizers 1 and 2. You'll find then in the lower left part of
Cyclop.

Each of the Synthesizers offers 6 different synthesis methods that have been engineered with a great deal of listening and tweaking, until that special sound was attained that makes Cyclop so impressive.

The three main controls of the Synthesizer units are modulation targets that can be assigned in the Assignments Screen.

Cyclop always produces 4 Unison voices. You can offset the pitch of the voices using the Unison Control. Detune the Synthesizers with each other using the Detune and the Octave Control.

Power the Synthesizer on/Off using the S1 or the S2 Switch.

Use the menu to load the desired Synthesizer engine.

Saw Regiment

This is a special Super-Saw oscillator thet generates 7 sawtooth waveforms running at a slight pitch offset for a massive sound.
Additionally, the four unison voices can be used to stack octaves.
The Digitize parameter is a frequency-dependent sample rate reducer.

The modulatable parameters:

Super: Offsets the pitch for the 7 saw waves.

Stab: Adds up to 3 octaves to the sound.

Digitize: Special pitch dependent sample rate reduction.

Analog Sync

This fat and juicy emulation of two analog oscillators which run in sync with each other gives you some seriously heavy bass sounds.
Modulate the sync frequency to let the beast out of the cage.

The 3 main parameters:

Main/Sync: A cross fader that blends between master and slave oscillator.

Sync F: Sync frequency of the slave oscillator.

PW: Pulse width of the Pulse and the Double Saw oscillators. Goes from 100% narrow to 100% wide. Center position should be used for an equal pulse wave.

RAW: Deactivates a special anti-aliasing method for a rougher sound.

Fixed Frequency: Unlinks the Sync pitch frequency from the master pitch frequency. If this button is deactivated, the sync frequency will be proportional to the master frequency.

FM

Our idea of easy 3-OP-FM synthesis. A Modulator Oscillator modulates
2 Carrier Oscillators. Two FM algorithms provide a variety of FM sounds that fit snugly to the Cyclop concept.

Main Parameters:

FM 1: Determines how much Carrier 1 is modulated.

FM 2: Determines how much Carrier 2 is modulated.

Mod: Determines overall linear modulation intensity.

Additional parameters:

M: Frequency ratio of the Modulation oscillator. The heart pops up when a harmonic ratio is chosen.

C1: Frequency Relation Modulator-to-Carrier 1.

C2: Frequency Relation Modulator-to-Carrier 2.

Transformer

This very special unit is essentially a wavetable synthesizer. The loaded sample is analyzed and then sliced into waveform-cycles. These Cycles
can be addressed by the Position Knob. By riding the Position knob with a modulator, you can read a sample in many ways.

The loaded sample will most likely not sound like before. This synthesis method completely destroys the sample and puts it together so that it always plays the pitch that you play on the keyboard.

This synthesis method also allows Formant shifting which is one of the key features of Cyclop. This is the real vocal synthesizer!

Load any kind of monophonic material for best results.

Main Parameters

Formant: Formant shifting. Double click to set it to center position.

Pos: Determines the wavetable that you selected within the sample.
In order to read a loop so that it runs along with your song, modulate

the position control with an upward saw LFO. Put the Lfo Speed to 1 bar.

Use the envelope to read the sample exactly as you desire.

Use the step sequencer to modulate the position control for skipping effects.

Grain: This control allows fine tuning of the grain size that actually defines the size of the wavetable. Double click for center position.

Spectromat

The Spectromat works with 32 internal oscillators that add up to a very complex sound. The 32 spectral bands give you a huge number of tweaking possibilities. Spread, shift, shape them, or deactivate bands as you like.

Main Parameters:

Spec: Spectral frequency offset. Spectral bands are offset by up to 5 semitones with relations to each other. Double-click for center position (2 semi notes spread).

Shape: Select the amplitude curve which is applied to the spectrum.

Shift: The whole spectral curve can be shifted within the frequency domain.

Each band offers an on/off button which works like this:

- Left click to draw

- Right click to erase

Phase Stressor

The Phase Stressor is our idea of a Phase Distortion oscillator. It is in essence a sine wave modulated in different ways, including self modulation. The very special display shows the phase distortion of a sine wave in a spherical coordinate system.

Main Parameters:

Mod: Intensity of waveform modulation.

SelfMod: Intensity of self-modulation. Includes some sonic surprises along the way.

Sym: Defines the phase symmetry of the waveform.

The Routing Unit

Cyclop offers a special routing feature for mixing the synthesizer and filter signals in various ways. There a 4 routings available, most of them include a combination of filters and synths. If filters are running in series, there is a distortion unit placed between them to add some sonic spices before the next filter stage.

The floating plasma always shows the you way that the audio signal is going, until it reaches the output which is displayed by a speaker symbol.

The 4 Routings:

1. Parallel

Synth 1 and 2 are mixed with each other. The resulting audio signal runs through filter 1 and 2 simultaneously. The two resulting signals are then mixed together to the final signal.

2. Serial 1

Synth 1 and 2 are mixed with each other.
The resulting signal then goes to filter1, passes the distortion unit and then goes through filter 2.

3. Serial 2

Synth 1 and 2 are mixed with each other.
The resulting signal then goes to filter2, passes the distortion unit and then goes through filter 1.

4. Split

The Signal from Synthesizer 1 goes directly to Filter 1.
The Signal from Synthesizer 2 goes directly to Filter 2.
The resulting two signals are then mixed to the final signal.

Distortion

The 9 available Distortion units give the synth signal some roughness and dirt, when the filters are running in series. Routing Ser1 and Ser2.

The same Distortions can be found in the Routing Unit, where distortions are used between the filters when they run in series.

Amp
Amp/Speaker simulation with lots of warmth.

Drive
Nice and angry overdrive with a special top end.

Dist
Intensive distortion that turns the sound into something new.

Diode
The distortion core from the MS-20 filters is used here to provide some mojo.

Clip
The audio will be boosted until it clips. Use this unit to just boost your level or to add some really evil distortion.

Sine
The audio signal is boosted and then runs through a sine algorithm.

1-Bit
The audio signal must decide 1 or 0? The hardest digital method.

Crush
Nice bit crusher that basically adds some silver to the sound.

Digitize
This pitch-dependent sample rate reducer is always good for some digital vocal sounds.

The Filters

Cyclop offers two identical Filter units that contain 10 all-new filter creations from our DSP nerds. Most of the filters are saturated in a way that preserves a strong sound — especially a strong bass — even at high resonance settings. Four different lowpass flavors cover the sound palette from aggressive (Ms-20-style Lp 2 Pole) to fat (Moog-style Ladder Lp 4 Pole).

The filters also contain a vowel mode. Activate it to use any filter model in Vowel Mode.

Main Parameters:

Cutoff: Determines the working frequency according to the filter type.

Resonance: Determines the filter resonance/sharpness.

Mix: Mixes the input signal with the output signal of the filter.

HP

A highpass filter with 12db depth.
High Pass only lets frequencies pass that are above the cutoff frequency.
This high Pass is a special MS-20 style algorithm that provides a strong bass and a very rich and colorful attitude.

Perfect for using with the vowel mode.

BP

A Band Pass filter with 12db depth. Only frequencies at the cutoff frequency pass this filter.

BPLP

A Moog style Band Pass/Low Pass combination.

LP 2

2-Pole Low Pass filter with 12db depth. This filter uses a special MS-20-style for the most juicy and overdriven filter sound that works best with the vowel mode.

LP 4

4 Pole Lowpass with a darker sound.

LP Ladder

4 Pole Low Pass with Moog Ladder Filter flavor. Features a fat sound and a sharp resonance.

MBST

Mid Boost Filter, a mixture of lowpass and bandpass Filters. Sounds pretty fat because it puts out a good deal of uncommon filter sound.

RPL

Ripple Filter. A spectral filter that consists of 4 bands that are shifted within the frequency domain.

CMB

Comb filter that is based on short delay times. This one is good for vowels and resonator sounds.

Host Integration

Cubase

Go to the Cubase plugin manager and make a full rescan there.
Please double check that you install the "Plug-In".dll in the VST folder Cubase is using. On Windows first make sure to choose the correct version (32/64 bit).
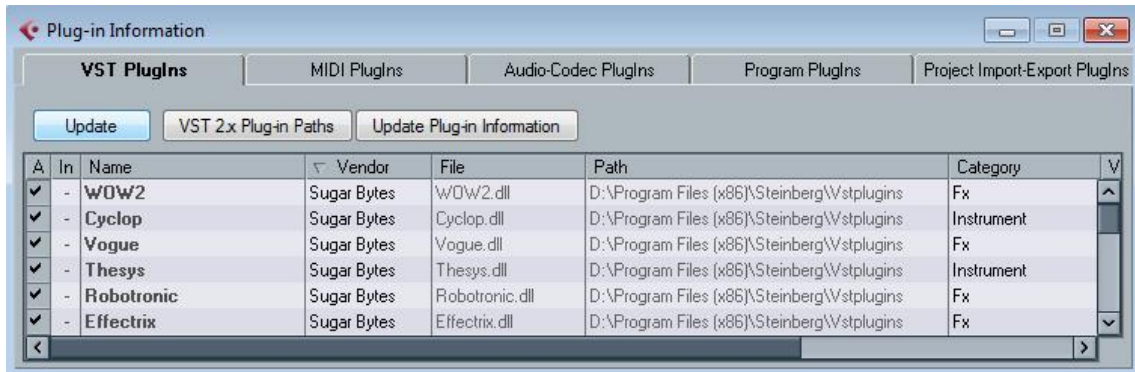
Create an Instrument track and load Cyclop as insert on that track.

Ableton

In Live it's highly recommended to use the VST version.
The installer will ask you for the VST plugins folder.
Make sure you set the VST Plugins folder that Live is using.
Please have a look in your VST folder and check whether the "Plugin".dll is present beside your other VST's.

On Windows make sure you have installed correct version 32bit/64bit.

At least in Live it can happen that a plugin gets marked as unloadable and will not be rescanned automatically. You have to force a rescan by unchecking and checking the 'Use custom VST Folder' checkbox in Preferences/File Folder/Plug-In Sources.

Insert Cyclop as an instrument in a MIDI track from the Plug-Ins list.

Pro Tools

When installing Cyclop, make sure to select the RTAS or AAX plug-in format.
(AAX is supported for Pro Tools 10.3.5 and higher.)

Launch Pro Tools and create an Instrument track. Load Cyclop as insert on that track.

Logic

Choose Cyclop as an AU-Instrument from the I/O dialogue of a Software Instrument track.
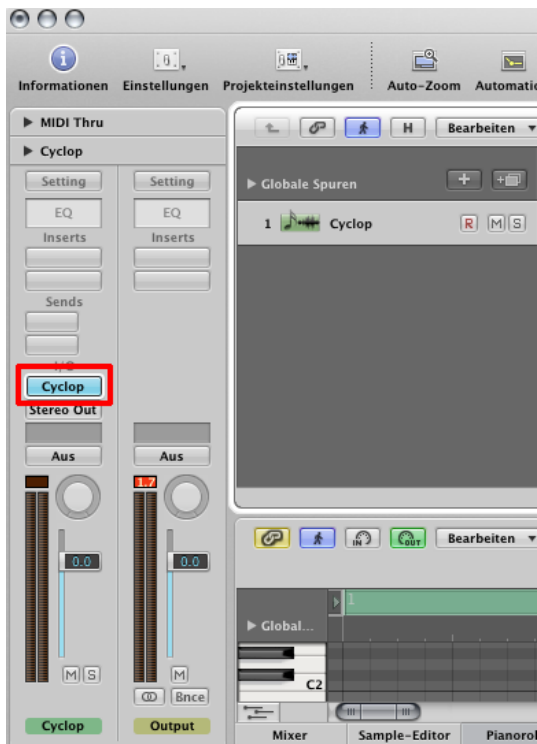
Sonar

Make sure you set the VST Plug-ins folder that Sonar is using.

Go to Utilities> Cakewalk Plug-in Manager. In the VST configuration section, click on Options then click Add and select the folder your VST plugin is installed to. Press OK and click the Scan VST Plug-ins button.
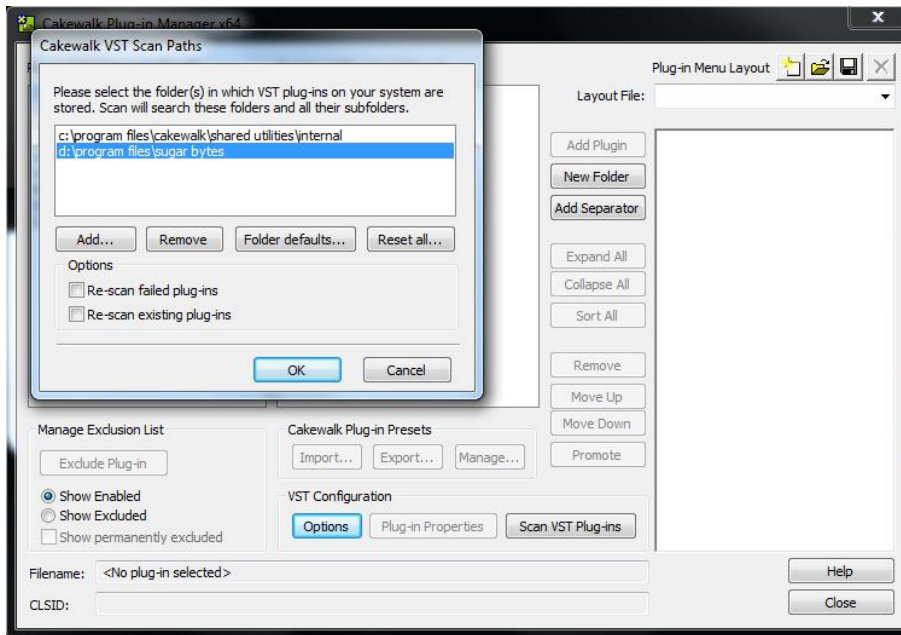
On WIN before doing this, make sure you have installed the correct flavor 32 bit/64bit version.

Insert Cyclop as a Soft Synth.
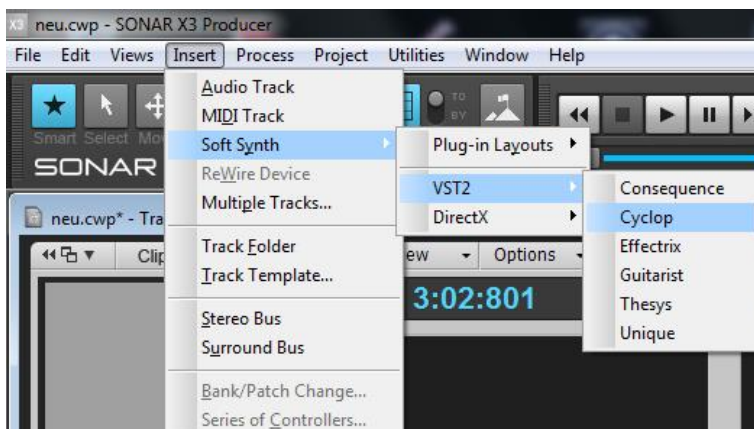
Studio One

Go to the Studio One menu and choose Options, click on Locations, then VST Plug-Ins.
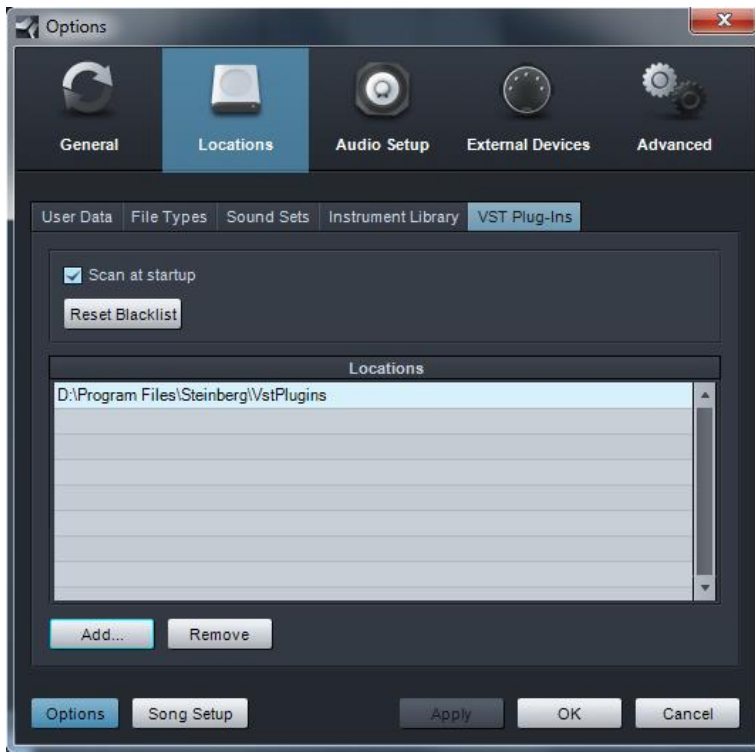
Click the Add button and select your VST Plugin folder. Press OK then close and re-open Studio One. If you still don't see your plugin, go back into that screen and click the "reset blacklist" button, then close and open Studio One again.

Create an Instrument track and load Cyclop as insert on that track.
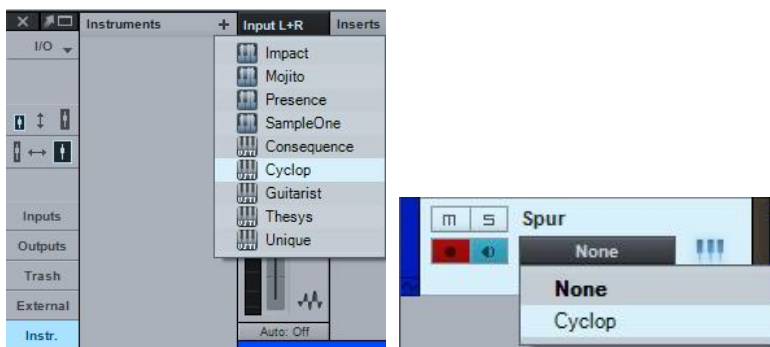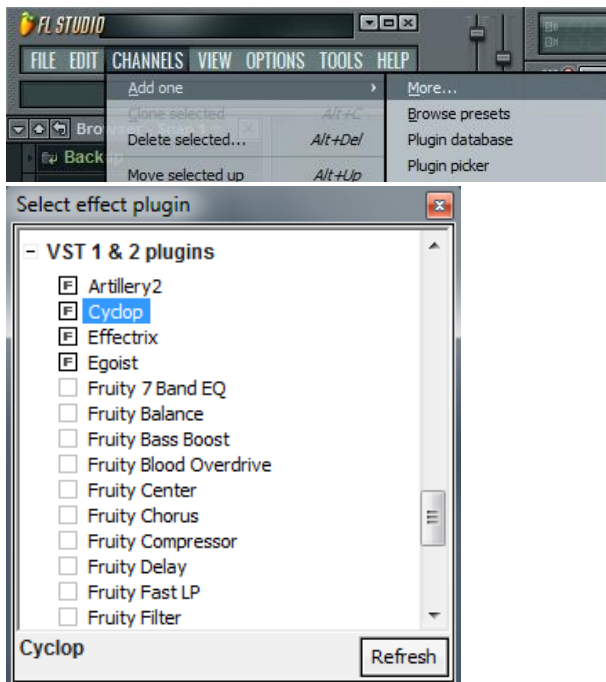
FL Studio

Please go to Options -> File Settings and select the folder your VST plugin is installed to or double check that you install the "Plug-In".dll in the VST folder FL Studio is using.
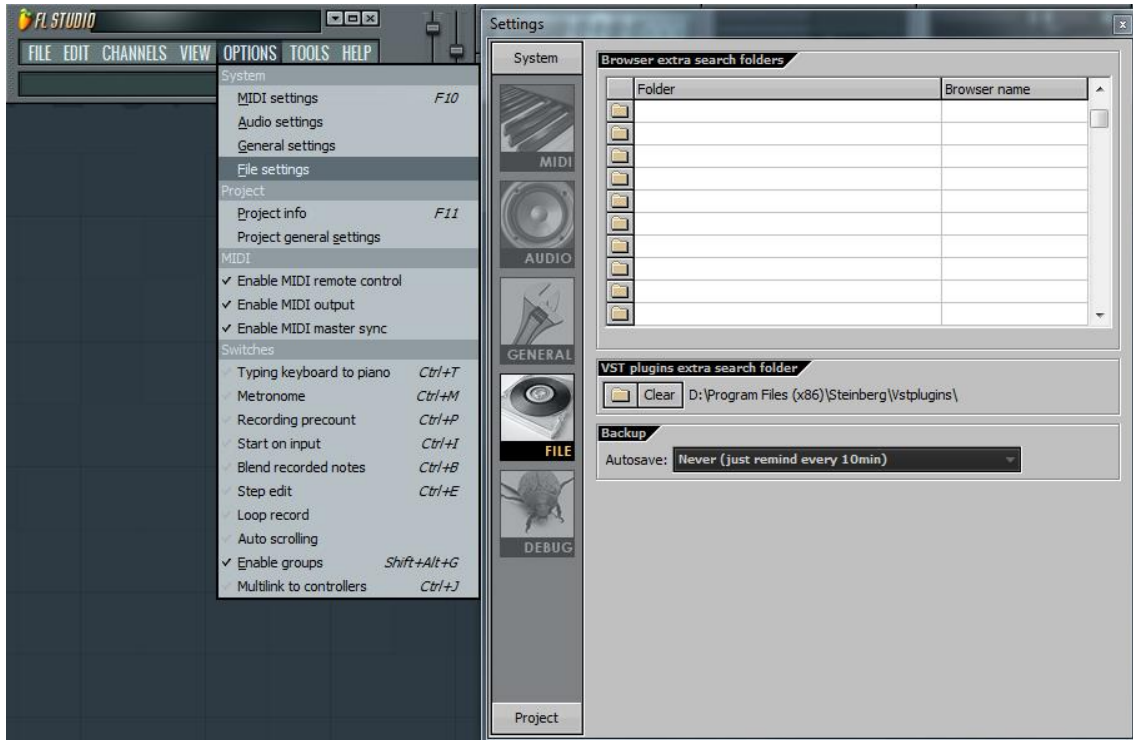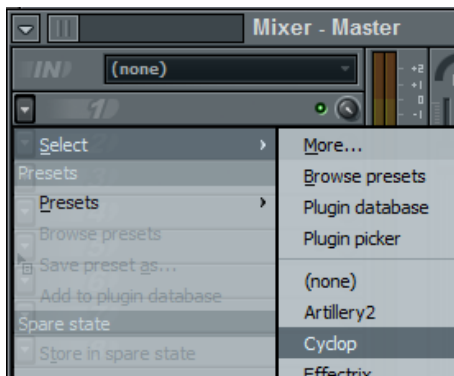

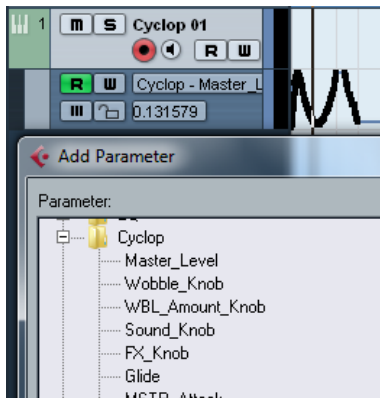Now please go to Channels->Add one->More...

There you should find Cyclop and do a refresh again.
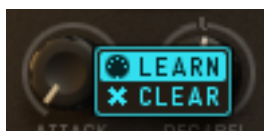
You can now open Cyclop in the Mixer-Inserts

MIDI remote

All relevant Cyclop parameters can be controlled via Host Automation.
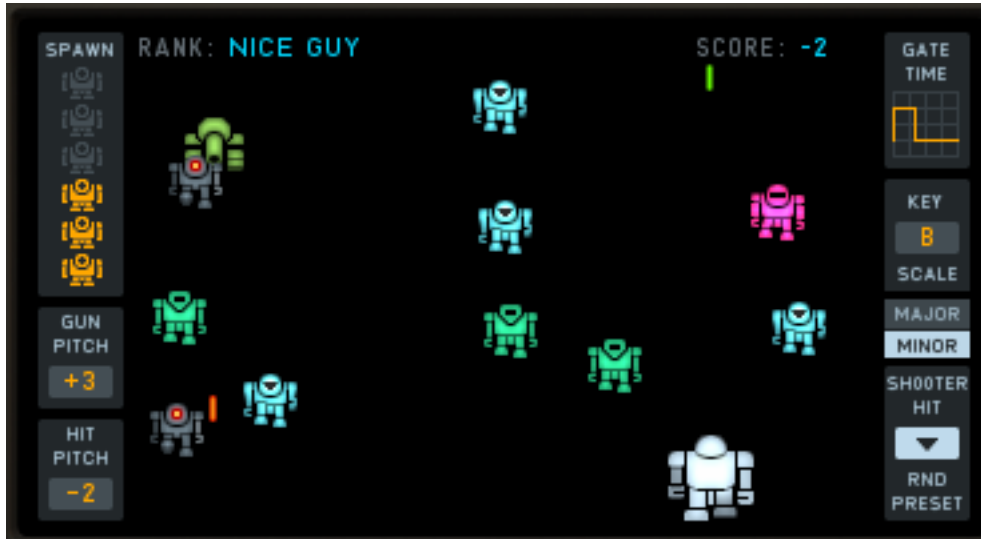

All relevant Cyclop controls can be remoted via MIDI controllers.

You find the MIDI Learn function when you right click a control.

The Game

While we created the Cyclop Robot logo, lots of funny little bots were drafted. So the idea to a little shooting game came up, here you can see how it turned out.

Click the Cyclop robot logo to start the game. You can still play MIDI notes while the game is running.

The Game offers nice methods to just check random presets which are called when you shoot the little tank, and to create nice sounds by shooting enemies or letting them break through to create funny melodies according to the selected major/minor scale.

Mouse movements in the Game

A mouseclick into the game sets the Hero (your white bot) position.
As long as you hold the mouse down, the robot will keep on shooting.
The vertical mouse position controls the shooting rate.

The Game triggers MIDI notes whenever you shoot, when you hit an enemy, when enemy hits you or when enemy breaks through.

Game Controls

The game offers various controls to get the best out of it.
Basically the knobs decide how the game works together with the Cyclop synthesizer.

Spawn

This control determines how many enemies are created and how fast they are. With higher high score, the spawn will raise internally as well.

Gun Pitch

This control determines the pitch envelope amount for the note triggered by your shooting.

Kill Pitch

This control determines the pitch envelope applied to the note that is generated when you kill an enemy. The pitch can go up or down, depending on the position of the knob. When the knob is set to its middle position, the pitch is not changed.

Root Note

The Key that the scale is based on.

Scale

Determines if enemies that break through create pitches in a major or minor scale.

Gate Time

Overall length of a note, generated by the game.

High Score

The highest high score is generally saved.
Your ranking is displayed in the game screen, the high score points are displayed above the wobble wave display.

Points

Erase Enemy: 1

Erase Shooting Enemy: 20

Being Shot: -1

Enemy Breakthrough: -1

Questions?

Silence

Silence because of empty Gater

Maybe you called a HotKey by accident and it called an FX page with
an empty Gater. Just click and drag with the mouse in the Gater
to activate the tracks.

Silence because of Master Level modulation

The Master Level can be modulated, with the second bar in the Assign Screens. If Master
Level is set to Zero by Envelope or Sound Knob, the instrument might produce no sound.

Silence because of modulated filter

Filters can mute all audible frequencies. Make sure that Low Pass and Band Pass filters are
not running at minimum cutoff all the time, Band Pass and High pass should not run at
maximum cutoff all the time.

Silence because of disables oscillators

A disabled oscillator produces no sound. Activate the S1 or S2 buttons to make sure
synthesizers are running.

Silence because of the wrong Serial Number

The wrong serial number disables all sound. Check the serial number in the about screen,
retype it there or just re-install the Cyclop.

Lizense

- The Cyclop License covers both the OS X and Windows versions and can be used on
  two computers. For any use on more than two computers, you must buy an additional
  license.
- You may resell the software (and therefore transfer the license) three months or more
  after purchase.

Impressum